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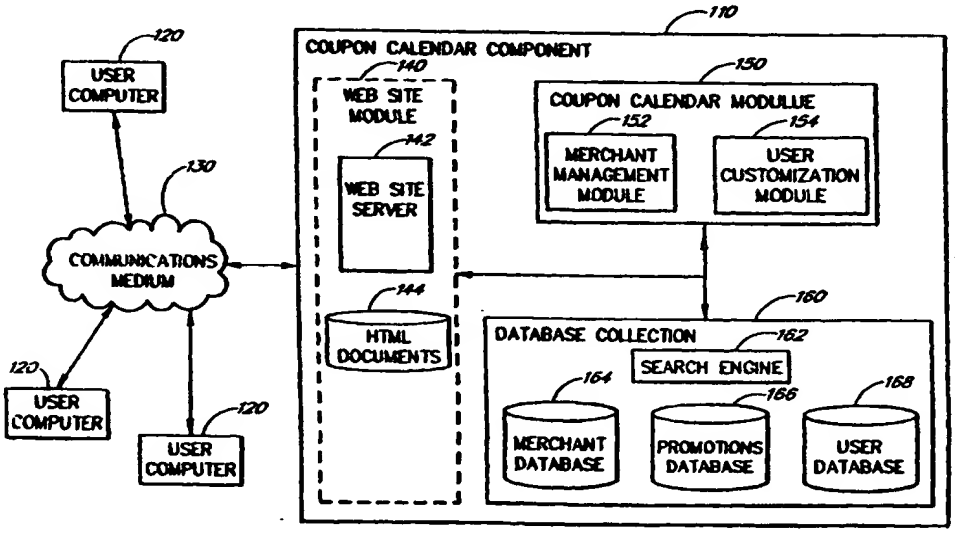

(57) Abstract: The present invention provides a system and method for providing custom coupon calendars. The system and method of the present invention overcome the difficulties discussed above by providing a common forum where merchants can advertise their goods and services, consumers can find promotions that apply to the goods and services they seek, and merchants can target certain promotions to a consumer who has indicated an interest in the targeted area.

WO 00/72113 A2

COUPON CALENDAR SYSTEM AND METHOD

RELATED APPLICATIONS

This application is related to copending United States application number 60/135,258 which is commonly owned.

FIELD OF THE INVENTION

The present invention relates to Internet commerce, and in particular, to a system and method for providing custom advertising via the Internet.

BACKGROUND

With the increasing popularity of the Internet and the World Wide Web, it has become common for merchants to use the web to market and sell their goods. Many merchants communicate with potential consumers via web sites that provide access to and descriptions of their goods and services. Some merchants also use "promotions" as a marketing tool to attract consumer business. Promotions may include specials such as "Buy one get one free," "10% off any purchase," as well as many other promotions.

One common problem, however, is that consumers are unable to find desired promotions. Due to the large number of merchants that offer a multitude of goods and services over the Internet, consumers may not locate promotions that match their interests. Even if consumers are able to find a set of goods and services related to their interests, it is time consuming for consumers to peruse every web site offering related goods and services. Furthermore, even if the consumer finds a merchant that offers a related promotion, the promotion has often expired or does not apply to the consumer's needs such as the particular date and/or place of the desired services. For example, while a consumer looking for coupons for weekend travel might find a "70%-off coupon" for a hotel in Florida, the coupon may be restricted for use only in May of 1999 for weekday stays. Causing, the consumer to resume his search in order to find another promotion.

SUMMARY OF THE INVENTION

In general, the present invention involves matching offers for goods and services with customers of such services based on the date desired for the good or services.

One aspect of the present invention involves a coupon calendar system which has a merchant management module configured to manage promotions from merchants and a user customization module configured to provide a user with a custom coupon calendar listing promotions from the merchants. In one embodiment, the merchant management module is configured to register merchants, collect promotions, and track merchant billing information. In a further embodiment, the user customization module is further configured to process user queries in order to determine the user's interests, select promotions that relate to the user's interests, and present a calendar that includes information on the selected promotions. In one embodiment, the user customization module is further configured to register a plurality of users. The user customization module may also be further configured to directly present to the users promotions relating to the user's interests.

Another aspect of the present invention involves a coupon calendar system comprising a merchant management module configured to manage promotions from merchants, and a user customization module configured to provide a user with a custom set of promotions wherein at least one of the set of promotions are from the merchants. Advantageously, the merchant management module is further configured to register merchants, collect promotions, and track merchant billing information.

Another aspect of the present invention involves a method for providing custom promotions based on dates. The method involves receiving a plurality of promotions relating to a plurality of merchants, receiving a plurality of user information relating to a plurality of users, matching at least one of the plurality of promotions to the at least one of the plurality of users based at least on the plurality of user information, and presenting to the at least one of the plurality of users a display that includes information on the matching at least one of the plurality of promotions.

Yet another aspect of the present invention involves a method for providing custom promotions. This method involves receiving a plurality of promotions relating to a plurality of merchants, receiving a plurality of user information relating to a plurality of users, matching at least one of the plurality of promotions to the at least one of the plurality of users based at least on the plurality of user information, and presenting to the at least one of the plurality of users a promotion that includes information on the matching at least one of the plurality of promotions. In one embodiment of the method, the promotion display is an interactive coupon. In another embodiment, the promotion display is an audio and video commercial.

For purposes of summarizing the invention, certain aspects, advantages, and novel features of the invention are described herein. It is to be understood that not necessarily all such advantages may be achieved in accordance with any particular embodiment of the invention. Thus, for example, those skilled in the art will recognize that the invention may be embodied or carried out in a manner that achieves one advantage or group of advantages as taught herein without necessarily achieving other advantages as may be taught or suggested herein.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 illustrates a high-level block diagram of one embodiment of the present invention.

Figure 2 illustrates a flow diagram of one embodiment of registering a merchant.

Figure 3 illustrates a flow diagram of one embodiment of collecting promotions from a merchant.

Figure 4 illustrates a flow diagram of one embodiment of calculating the merchant's bill.

Figure 5 illustrates a flow diagram of one embodiment of registering a user.

Figure 6 illustrates a flow diagram of one embodiment of accepting a user request.

Figure 7 illustrates a flow diagram of one embodiment of querying the user to determine the user's interests.

Figure 8 illustrates an example web page which includes one view of a sample coupon calendar.

Figure 9 illustrates an example display from a sample coupon calendar.

Figure 10 illustrates an additional example display from a sample coupon calendar.

DETAILED DESCRIPTION

A system and method which represent one embodiment and example application of the invention will now be described with reference to the drawings. Variations to the system and method which represent other embodiments will also be described. In one embodiment, the system and method are used to provide users with a customized coupon calendar over the Internet.

For purposes of illustration, one embodiment will be described in the context of the Internet. The inventors contemplate that the present invention is not limited by the type of communications medium 130 used, and that other types of communications mediums may be used, such as, for example, satellite broadcasts, and so forth. Furthermore, it is recognized that in other embodiments, the coupon calendar system and method may be implemented as a single module and/or implemented in conjunction with a variety of other modules and the like. Moreover, the specific implementations described herein are set forth in order to illustrate, and not to limit, the invention. The scope of the invention is defined by the claims.

These and other features will now be described with reference to the drawings summarized above. The drawings and the associated descriptions are provided to illustrate embodiments of the invention, and not to limit the scope of the invention. Throughout the drawings, reference numbers are re-used to indicate correspondence between referenced elements. In addition, the first digit of each reference number indicates the figure in which the element first appears.

I. Overview

The present invention provides a system and method for providing custom coupon calendars. The system and method of the present invention overcome the difficulties discussed above by providing a common forum where merchants can advertise their goods and services, consumers can find promotions that apply to the goods and services they seek, and merchants can target certain promotions to a consumer who has indicated an interest in the targeted area. As used herein, the term "coupon calendar" refers to a calendar that includes various types of promotions and is not intended to imply that only "coupons" may be displayed on the calendar. Furthermore, while the system is discussed as being implemented on an Internet web site, it is recognized that invention may be implemented in standalone software program and/or encoded into hardware and embedded in a variety of systems, such as, for example, a cellular phone, a portable computing device, a computer, a smart card, and so forth. In addition, the system may be accessed using a variety of communication techniques, such as, for example, an internet connection, a telephone line, customized email, and so forth.

In accordance with one aspect of the invention, the coupon calendar system manages merchants and their promotions. In one embodiment, the merchant management module collects and manages information about the various merchants that wish to promote goods or services on the system and allows merchants to submit promotions for display on a calendar or directly target advertising to consumers having indicated an interest. In addition, in one embodiment, the merchant management module tracks when a merchant's promotions are displayed, sent directly to the user, and/or accessed by user.

In accordance with another aspect of the invention, the coupon calendar system provides the user with a custom coupon calendar in response to a request. In one embodiment, the user customization module collects and manages information about users that wish to view a coupon calendar, queries the user to determine the user's interests (e.g., the user's target date, place, and event), chooses promotions related to the user's designated interests, and displays promotions related to the user's designated interests on the dates indicated. It is recognized that in other embodiments the user may access coupons without using or having the calendar. For example, a user may be sent a targeted coupon via email based on the user's profile.

II. Coupon Calendar System

An overview of one embodiment of a coupon calendar system is shown in Figure 1. In the exemplary system, a coupon calendar component 110 communicates with a user computer 120 over a communications medium 130. The coupon calendar component 110 in Figure 1 includes a web site module 140, though it is recognized that in other embodiments, the coupon calendar module 150 may be implemented as a separate module and/or implemented without using a web site module 140.

As used herein, the word module, whether in upper or lower case letters, refers to logic embodied in hardware or firmware, or to a collection of software instructions, possibly having entry and exit points, written in a programming language, such as, for example, C++. A software module may be compiled and linked into an executable program, or installed in a dynamic link library, or may be written in an interpretive language such as BASIC. It will be appreciated that software modules may be callable from other modules or from themselves, and/or may be invoked in response to detected events or interrupts. Software instructions may be embedded in firmware, such as an EPROM. It will be further appreciated that hardware modules may be comprised of connected logic units, such as gates and flip-flops, and/or may be comprised of programmable units, such as programmable gate arrays or processors. The modules described herein are preferably implemented as software modules, but could be represented in hardware or firmware.

A. Coupon Calendar Component

In one embodiment, the coupon calendar component 110 includes a web site module 140, a coupon calendar module 150, and a database collection 160.

The coupon calendar component 110 may interact with other components, interfaces, and/or protocols (not shown). For example, the coupon calendar component 110 may communicate with a user's date book software to order synchronize with other calendar events. This synchronization may be one way or two way synchronization wherein the coupon calendar module 150 only receives events, only sends events, or receives and sends events. In another example, the coupon calendar may synchronize with a cellular phone to allow the user to receive phone calls about a variety of promotions and/or to automatically call merchants to obtain more information about the promotions. In another example, the coupon calendar might be set to acquire discounts in a certain location, i.e. zip code. The user might activate a GPS (global positioning) interface for the calendar to send opportunities which match the user's

interest in a specific location. By restricting selections, the coupon calendar may also become a filter preventing invasion of the user's privacy by unwanted advertisers.

1. Web Site Module

As illustrated by Figure 1, the coupon calendar component 110 includes a web site module 140. The web site module 140 may include a web site server application ("web server") 142 which processes user requests received from the user computers 120 via the communications medium 130. The user requests may include, for example, requests to view a coupon calendar, requests to search on-line for promotions, and/or requests update merchant billing information. In one embodiment, the web server 142 accesses a database of HTML (Hypertext Markup Language) content 144 which includes, among other things, web pages for performing various types of functions. In other embodiments, the database of HTML 144 may also include other information such as server and client side scripts.

In one embodiment, the web server 142 includes web server software (not shown), such as, for example, Netscape's Internet Server software, Microsoft's Internet Server software, or the like. Such web server software may be configured to process messages from the user computers 120 and to store and access information from the coupon calendar component 110.

2. Coupon Calendar Module

In one embodiment, the coupon calendar component 110 includes a coupon calendar module 150. The exemplary coupon calendar module 150 includes a merchant management module 152 and a user customization module 154.

In one embodiment, the coupon calendar module 150 interacts with the database collection 160 to search and perform queries on the database collection 160. For example, coupon calendar module 150 may communicate with the user database to obtain information regarding the user's interests, with the promotion database to select promotions that relate to the user's interest, and/or with the merchant database to obtain information about the merchants.

In one embodiment, the coupon calendar module 150 interacts with the web site module 140 to receive and provide promotion information, user information, and merchant information to the user computer 120.

a. Merchant Management Module

The merchant management module 152 manages the merchants and their promotions. In one embodiment, merchants are permitted to view user calendars and requests. For example, a merchant may enter the web site, and view users' calendars to decide whether to add a promotion to the database, or even to add a promotion to a specific user's coupon calendar. In one embodiment, the merchant management module 152 communicates with the database collection 160 to allow a merchant to search user calendars for specific user requests. Merchants may then provide a related promotion in the promotion database or send a related promotion directly to a requesting user.

In one embodiment, the merchant may search user calendars to determine the price of a promotion. For example, a merchant may gauge how many users are interested in a promotion, what users may be willing to pay for a promotion, whether there are auction opportunities such that the merchant or user may bid for a promotion rate, what

action may be taken to reduce or maximize the merchant's inventory, and so forth. The merchants may be given search tools as well as standard and/or customizable reports that access user information.

In one embodiment, the merchant management module 152 includes a merchant registration process, a promotion collection process, and a merchant billing process. For more information on the merchant management module processes, see the section below entitled "Coupon Calendar Processes – Merchant Management Module Processes."

b. User Customization Module

The user customization module 154 manages the users and provides the users with a custom coupon calendar. For example, a user may enter the web site and request information on an activity for a specific date. In one embodiment, the user customization module 154 communicates with the database collection 160 to find and receive user information, promotion information, and/or merchant information.

In one embodiment, the user customization module 154 includes a user registration process and a user request process. For more information on the user customization module processes, see the section below entitled "Coupon Calendar Processes – User Customization module Processes."

3. Database Collection

In one embodiment, the coupon calendar system includes a database collection 160 as illustrated in Figure 1. The exemplary database collection 160 includes a search engine 162 as well as a merchant database 164, promotion database 166, and a user database 168.

The search engine 162 is a program that searches a database using keywords and/or phrases. Thus, the search engine 162 may be used to access information in the database.

In one embodiment, the search engine 162 may be implemented in connection with a backend component (not shown) to the database collection 160 that receives database requests via servlets, small programs that run on servers, and sends a corresponding SQL request to the database collection 160. It is recognized that in other embodiments data access could be performed differently, for example, a different type of backend component could be used or the database collection 160 could be accessed directly.

The merchant database 164 includes information about the merchants that provide promotions for the coupon calendar system as well as merchants that want to target particular users who have interests relating to the merchant's products and/or services. This information may include data provided by the merchants such as the merchant's name, mailing address, e-mail address, credit card number, login, password, as well as other general information.

The promotion database 166 includes information about the various promotions. In one embodiment, the promotions are related to a merchant in the merchant database 160 such that when a promotion is displayed or accessed, the merchant may be identified and billed. The promotion database 166 may include information such as text to display for the promotion, a printable coupon, accompanying graphics files, expiration dates, merchant ID, targeted user, and any other information relating to the promotion.

The user database 168 includes information about the users of the coupon calendar system. This information may include user data such as name, age, sex, address, e-mail address, planned events, login, password, as well as other information derived from the user's activity on the web such as, the fact that the user selected four coupons relating to golf, thus implying an interest in golf, the user's time spent on the web site, the number of clickthroughs and so forth).

The database collection 160 may also include other databases (not shown) for performing various management tasks. For example, the database collection 160 may include an activity database that tracks user and merchant activity. In addition, the database collection 160 may include different search mechanisms to acquire information and promotions matching the user's demands from other Web sites. For example: the user desires to purchase a particular brand of Mayonnaise from the supermarket. The coupon calendar receives the query and looks at available Web sites with a promotion or price point that meets the User query and posts it to the Calendar. In other words, the calendar acts as an agent of the user.

In connection with the database collection 160, in one embodiment, there may be several processes (not shown) such as ID generators, number generators, statistic generators, session generators, and temporary storage units that work with the database collection 160.

In one embodiment, the database collection 160 is implemented using the relational database Microsoft® SQL Server allowing access to the data via the Structured Query Language (SQL). SQL is a language standardized by the International Standards Organization for defining, updating, and querying a relational database.

It is recognized that in other embodiments, the database collection 160 may be implemented using a different relational database as well as other types of databases such as a flat file database, an object oriented database, a hierarchical database, and so forth. Moreover, while the database collection 160 depicted in Figure 1 is comprised of several separate databases, it is recognized that in other embodiments, the database collection 160 may contain other databases and/or some of the databases could be combined. In addition, the database collection 160 may be implemented as a single database with separate tables or as other data structures that are well know in the art such as linked lists, binary trees, and so forth.

B. User Computer

In one embodiment, the user computer 120 is a device which allows users and/or merchants to interact with the communications medium 130 and access the coupon calendar component 110. In one embodiment, the user computer 120 is a conventional general purpose computer using one or more microprocessors, such as, for example, a Pentium processor, a Pentium II processor, a Pentium Pro processor, an xx86 processor, an 8051 processor, a MIPS processor, a Power PC processor, or an Alpha processor. In one embodiment, the user computer 120 runs an appropriate operating system, such as, for example, Microsoft® Windows® 3.X, Microsoft® Windows 98, Microsoft® Windows® NT, Microsoft® Windows® CE, Palm Pilot OS, Apple® MacOS®, Disk Operating System (DOS), UNIX, Linux®, or IBM® OS/2® operating systems. In one embodiment, the user computer 120 is equipped with a conventional modem or other network connectivity such as, for example, Ethernet (IEEE 802.3), Token Ring (IEEE 802.5), Fiber Distributed

Datalink Interface (FDDI), or Asynchronous Transfer Mode (ATM). As is conventional, in one embodiment, the operating system includes a TCP/IP stack which handles all incoming and outgoing message traffic passed over the communications medium 130.

In other embodiments, the user computer 120 may, for example, be a computer workstation, a local area network of individual computers, an interactive television, an interactive kiosk, a personal digital assistant, an interactive wireless communications device, a kiosk, a handheld computer, a telephone, a cellular phone, a router, a satellite, a smart card, an embedded computing device, or the like which can interact with the communications medium 130. While in such systems, the operating systems will differ, they will continue to provide the appropriate communications protocols needed to establish communication links with the communications medium 130.

C. Communications Medium

In one embodiment, the user computers 120 communicate with the coupon calendar component 110 using a communications medium 130. The communications medium 130 provides a path or link through which information can travel. The communications medium 130 may include one or more paths and may be implemented using physical links, such as, a connecting cable, and/or non-physical links such as channels that send electromagnetic transmissions via satellite, radio, microwave signals, and so forth.

In one embodiment, the communications medium 130 includes the Internet which is a global network of computing devices. The structure of the Internet, which is well known to those of ordinary skill in the art, includes a network backbone with networks branching from the backbone. These branches, in turn, have networks branching from them, and so on. Routers move information packets between network levels, and then from network to network, until the packet reaches the neighborhood of its destination. From the destination, the destination network's host directs the information packet to the appropriate terminal, or node. For a more detailed description of the structure and operation of the Internet, please refer to "The Internet Complete Reference," by Harley Hahn and Rick Stout, published by McGraw-Hill, 1994.

In one embodiment, the Internet routing hubs comprise domain name system (DNS) servers, as is well known in the art. DNS is a Transfer Control Protocol/Internet protocol (TCP/IP) service that is called upon to translate domain names to and from Internet Protocol (IP) addresses. The routing hubs connect to one or more other routing hubs via high speed communication links.

One popular part of the Internet is the World Wide Web. The World Wide Web contains different computers which store documents capable of displaying graphical and textual information. The computers which provide information on the World Wide Web are typically called "web sites." A web site is defined by an Internet address which has an associated electronic page. The electronic page can be identified by a Uniform Research Locator (URL). Generally, an electronic page is a document which organizes the presentation of text, graphical images, audio, video, and so forth.

One of ordinary skill in the art will recognize that a wide range of interactive communications medium 130s may be employed in the present invention. For example, the communications medium 130 may include interactive television

networks, telephone networks, wireless data transmission systems, two-way cable systems, customized computer networks, interactive kiosk networks, automatic teller machine networks, and the like.

III. Coupon Calendar Processes

In one embodiment, the coupon calendar module 150 includes several processes associated with the merchant management module 152 as well as the user customization module 154.

A. Merchant Management Module Processes

In one embodiment, the merchant management module 152 includes a merchant registration process, a promotion collection process, and a merchant billing process. The merchant management module 152 may include other processes (not shown) such as, for example, a process for sending updates to merchants, a process for tracking merchant activity, and so forth.

1. Merchant Registration Process

In accordance with one aspect of one embodiment of the invention, the merchant registration process collects and manages information about the various merchants that wish to advertise on the coupon calendar. Preferably, the merchant registration process permits merchants to submit their information on-line via the web site as illustrated in Figure 2. First, the merchant creates a unique login and a secure password (block 210). Next, the merchant submits general information such as its name, mailing address, phone number, e-mail address, credit card number, as well as any other general information (block 220). Third, the merchant may submit a general description of merchant's products and/or services (block 230). Then, the merchant registration process verifies that the login is unique (block 240), stores the merchant's information (block 250), and returns to the merchant (block 260).

It is recognized that in other embodiments, the merchant may submit information using other methods such as submission by e-mail, filling out a paper questionnaire, faxing the information, etc. In addition, in other embodiments, a single merchant may use a separate login for each type of product or service it promotes or other methods may be used to identify the merchant and its products such as creating a unique merchant identifier as well as unique product/service identifiers for each product or service.

2. Promotion Collection Process

In accordance with one aspect of one embodiment of the invention, the promotion collection process allows merchants to submit promotions for display on coupon calendars or for direct target advertising. In one embodiment, the promotion collection process receives promotions from merchants on-line via the web site as illustrated in Figure 3. First, the merchant logs on using its unique login and secure password (block 310) as created in the merchant registration process (Figure 2). Next, the merchant submits information about the promotion such as the name of the promotion, the category of goods or services in which the promotion falls (e.g., sports, lodging, food, entertainment, etc.), the dates that the promotion is effective, the location of the promotion event, any specific restrictions, and other information relating to the promotion (block 320). Third, the merchant may submit any additional files such as graphic files, sounds files, or other files associated with the display of the promotion (block 330). Finally, the merchant may submit another promotion (block 340) or log off the system (block 350).

It is recognized that in other embodiments, the merchant may submit information about the promotion using other methods such as submission by e-mail, filling out a paper questionnaire, faxing the information, etc.

3. Merchant Billing Process

In accordance with one embodiment of the invention, the merchant billing process tracks when the merchant's promotions are displayed or sent directly to the user. In one embodiment, the merchant is billed for any activity in which the merchant's promotion is used by the system as illustrated in Figure 4. First, the Total is initialized to zero (block 410). Next, the activity is restricted to activity for which the merchant has not yet paid (block 420) as to avoid duplicate billing. In other embodiments, the activity could be restricted to different activity (e.g., for activity not yet billed) or not restricted at all. Then, for each of the merchant's promotions (block 430), the merchant is charged for every time (i): the merchant adds a promotion to the system (block 440), (ii) one of the merchant's promotions is displayed on the web page (either as a direct advertisement or on the calendar) (block 450), (iii) a user selects one of the merchant's promotions (block 460), (iv) one of the merchant's promotions is sent directly to a user (block 470), and any other time the merchant's promotion is used. After all of the merchant's promotions have been traversed (block 480), the Total is returned (block 490).

It is recognized that the merchant billing process may be implemented in a different manner. For example, a running total may be stored in the database and incrementally updated with user activities every time a user accesses a merchant's site; ever hour, every day, upon merchant request, and so forth.

It is recognized that in other embodiments, different factors as well as any subset and/or combination of those described above may be considered when billing the merchant. Preferably, the system may weight certain activity more than other activity. For example, a merchant may be charged more for each time a user selects its promotion and less for each time a promotion is merely displayed in the calendar. In addition, a merchant may receive a discount for submitting multiple promotions. The merchant billing process is preferably run for each merchant in the system. In an alternative embodiment, a fee could be charged for posting a promotion with no fees for display or use.

In one embodiment, merchants may log onto the system and view their current billing information. In addition, merchants may view their billing information by activity pertaining to a subset of users, an individual promotion, a subset of promotions, or all of its promotions. In addition, the merchant can limit the usage and the number of times the promotion can be selected by users. The merchant billing process may calculate each merchant's bill on a regular basis or dynamically each time the merchant wishes to view its current bill.

B. User Customization Module Processes

In one embodiment, the user customization module 154 includes a user registration process and a user request process. The user customization module 154 may include other processes (not shown) such as, for example, a process for sending updates to users, a process for tracking user activity, and so forth.

1. User Registration Process

In accordance with one aspect of the invention, the user registration process collects and manages information about the users that wish to view a coupon calendar. Preferably, the user registration process permits

users to designate their interests on-line via the web site as illustrated in Figure 5. First, the user may create a unique login and a secure password (block 510). Next, the user may submit general information such as the user's name, mailing address, state, zip code, phone number, e-mail address, gender, age, as well as any other general information (block 520). Then, the user registration process verifies that the login is unique (block 530), stores the user's information (block 540), and returns to the user (block 550).

It is recognized that in other embodiments, the user may submit information using other methods such as submission by e-mail, filling out a paper questionnaire, faxing the information, etc. In addition, in other embodiments, the user may choose to bypass the login process.

2. User Request Process

In accordance with one aspect of the invention, the user request process presents the user with a custom coupon calendar and permits the user to indicate whether merchants may access the user calendar and requests. For example, a user may allow merchants to "bid" on the user's request. Preferably, as illustrated in Figure 6, the user request process contains a user query process (block 610), a promotion selection process (block 620), and a calendar presentation process (block 630).

a. User Query Process

In one embodiment, the user query process queries the user to determine the user's interests as illustrated in Figure 7. First, the user logs on using the unique login and secure password (block 710) as created in the user registration process (Figure 5). It is recognized that in other embodiments, however, that the user may bypass the login. Next, the user may choose to create a new request or to retrieve an existing request (block 720). If the user retrieves an old request, then the user may enter the name or ID of the existing request (block 730) and edit the retrieved request (block 740) through edits such as altering the name, category, place, date, and/or event. For example, if the user has indicated that merchants may access the user's requests, merchants may have added promotions to the promotions database which will now appear on the user's coupon calendar. Users may also, if requested by the user, receive email from merchants who view the user's calendar and want to provide a promotion. It is recognized that in other embodiments, the request may be defined by parameters other than or in addition to name, category, date, place, and event. For example, the request may include price range, number of persons, preferred hotel, quality ratings (e.g., four stars), etc. If instead the user chooses to create a new request, then the user may create a new request by entering a name for the request and then designating the category, place, date, and desired event (block 750). The user preferably submits information via a set of blank fields, though other interface techniques or combinations thereof could be used such as radio buttons, checkboxes, drop down lists, etc. Finally, the process stores the results in the database collection 160 (block 760). In one embodiment, the user may elect to receive e-mail when a relevant new promotion is added to the promotion database.

b. Promotion Selection Process

In one embodiment, the promotion selection process chooses promotions related to the user's designated interests. The promotion selection process may select promotions specific to the user's request (e.g., category, place,

date, and/or event) that may be displayed in the coupon calendar as well as promotions that relate, in general, to the user's interests. For example, if the user indicated an interest in "Golfing in Maui during the month of June 1999," the promotion selection process may select a coupon for "50% off all green fees at the Maui Golf Course from June 6th to June 12th" as well as a coupon for "Free golf balls with every purchase."

c. Calendar Presentation Process

In one embodiment, the calendar presentation process displays promotions related to the user's designated interests in a calendar format. For example, in each calendar day, a symbol or hyperlink may be shown such that the user can select the symbol or hyperlink and receive a more detailed description of the available promotions. It is recognized that in other embodiments, the placement of the promotions or a link to the promotions on the calendar may be different such as a check box, a pop-up window, or another graphical interface feature. Figure 8 illustrates a sample coupon calendar web page.

In one embodiment, the promotions may be color coded or emphasized using different fonts and/or various graphics to allow the user to differentiate between merchants or to identify rankings of features such as price, date, time or place.

In one embodiment, users and/or merchants may communicate with the coupon calendar using standard interface techniques, such as, for example, a mouse, a touchscreen, voice commands, a keyboard, a pen, and so forth. In addition, various commands may be available to the user and/or merchant through a variety of user interface tools. For example, the user may be able to click on a "purchase" button to purchase goods directly from the calendar, the user may be able to click on a promotion and be automatically connected to the merchant (e.g., via the merchant's web site, e-mail, or telephone) to confirm information about the promotion; a merchant may be able to click on a button that allows the merchant to look at the merchant's calendar of promotions, billing information, as well as other information; and so forth.

Furthermore, it is recognized that the calendar may be implemented in a variety of languages as well as using a variety of calendar methodologies.

In one embodiment, the calendar presentation process displays promotions related to the user's designated interests in a single promotion format. For example, the calendar presentation process may send the user an interactive coupon for "15% off scuba equipment rental" with a link to the scuba company's web site. In another embodiment, the calendar presentation process displays a set of promotions related to the user's designated interests. The set of promotions may include a set of promotions from a variety of merchants related to a single interest or a mixture of promotions from a variety of merchants related to several interests. For example, the calendar presentation process may display a set of coupons related to Golf in one page under a tab marked "GOLF" and a set of coupons related to various restaurants in another page under a tab marked "DINING." The calendar presentation process may also display on one page a list of links to coupons related to Golf and a list of links to coupons related to Dining. Furthermore, the user may be presented promotions to the user through a variety of methods such as direct targeting of individual users or groups of users, that is users who have similar interests. This targeting may include

promotions sent via email, promotions sent to a cellular phone, promotions sent to a personal digital assistant display, and so forth.

IV. Operation

In operation, the coupon calendar system may be used to provide merchants with the ability to market their dynamically changing inventory of goods and services. In addition, users can designate goods and services of which they have interest and be presented with promotions that match those interests.

For example, a user may be planning to travel to Maui, Hawaii from May 6, 2000 to May 12, 2000 and is interested in promotions that pertain to car rental, scuba diving wind surfing, dining, shopping, and/or tennis. Thus, the user may contact the coupon calendar system using, for example, his cellular phone and request information using voice commands on the above areas specifying the dates of his travel. The system may then present the user with a display of the week of travel as well as promotions that match his interest. Figure 9 illustrates a sample display that includes promotions for Golf, Scuba, Dining, Car Rental, and Tennis for the dates of May 6 to May 12.

The filter depicted in Figure 9 and 10 provides a differential filter that allows the user to restrict the types of offers provided in the system in many ways such as finely defining the precise requirements of the good or service desired by the user. In essence, the filter option of a permits the user to filter unwanted offers that do not match the users exact requirements. Filter attributes could be almost anything a user desires.

Suppose the user is interested in finding out more information on the dining promotions, the user may select dining using a voice command and the user may be presented with a list of options that pertain to dining as illustrated in Figure 10. By selecting Food Preference, the user may select from a variety of food features such as, for example, Chinese, Mexican, Italian, German, Vegetarian, Unsalted, Kosher, Organic, No Preservatives, No MSG, and so forth. In addition, the user may elect a specific time window such as, for example, 6:00 am, 12:00 noon, or 5:30 pm. Furthermore, the user may also select a preferred locations features, such as, for example, Lahaina, Kihe, Al's Grill, The Steak House, Seafood Station, Hanna, City, Beachfront, West, East, North South, No Smoking, Smoking, Window, Near a specific location (enter address), and so forth.

The user may also utilize a map feature that presents the user with a map of the location of the service as well as other information. This information may include driving distance, time distance, photo of location, photo of building, sample menu, list of prices, and so forth.

After the user has selected his preferences, if any, the user may also purchase the merchant's goods and/or services. For example, if the user selects a 10% full buffet dinner at 5:30 pm on May 8, for a No Smoking Table at Lelani's, the user may then elect to pre-purchase the dinner. The user may use a digital wallet feature wherein the user pays using an electronic account, a credit card, a debit card, an ATM card, a direct debit code, and so forth.

In another example, a user may be planning a business party in Portland, Oregon on June 4, 2000 and may be looking for a caterer for the party. The user may contact the coupon calendar system using, for example, his Palm Pilot and request information about caterers in Portland, Oregon using his Palm Pilot touch screen. The system may match the user's request with promotions relating to caterers in Portland, Oregon on June 4, 2000 and present the

user with a display a set of promotions from various merchants. One merchant may for example, offer a 20% discount for parties of 400 or more in an interactive coupon that includes a web link to the merchant's web site. Another promotion may include a video and audio commercial that runs on the user's Palm Pilot and that illustrates sample entrees in which the caterer specializes and may include a voice activated command at the end of the commercial the sends a email directly to the caterer with the user's email address and other contact information.

Finally, although the calendar display has been shown above, the display of a calendar is not necessary. Specifically, the calendar promotion system may provide a simple agent service. In one embodiment, rather than a calendar display, a user merely inputs the desired activity and the date desired through entry fields, or through a voice recognition system, and the calendar system responds with promotions or available options through a promotion presentation screen, or through a voice response. In this embodiment, the actual calendar grid is not required. In other words, in an embodiment without the calendar grid, the calendar system operates as an agent for the user with the user inputting the desired activity, location and date, and the calendar system providing or allowing merchants and service providers to provide options directly to the user with an presentation window rather than the calendar grid. Accordingly, the present invention is not limited to the use of a calendar grid interface. Voice and other presentation interfaces may provide the same matching of offers for goods or services with desired dates for such goods or services of the user.

V. Conclusion

While certain embodiments of the invention have been described, these embodiments have been presented by way of example only, and are not intended to limit the scope of the present invention. Other embodiments that are apparent to those of ordinary skill in the art are also within the scope of this invention. For example, although the embodiments described herein employ on-line registration, other methods for registration can be used. Accordingly, the breadth and scope of the present invention should be defined in accordance with the following claims and their equivalents.

WHAT IS CLAIMED IS:

1. A coupon calendar system comprising:

a merchant management module configured to manage promotions from merchants; and

a user customization module configured to provide a user with a calendar listing promotions from the merchants.

2. The coupon calendar system of Claim 1, wherein the merchant management module is further configured to:

register merchants;

collect promotions; and

track merchant billing information.

3. The coupon calendar system of Claim 1, wherein the user customization module is further configured to:

process user queries in order to determine the user's interests;

select promotions that relate to the user's interests; and

present a coupon calendar that includes information on the selected promotions.

4. The coupon calendar system of Claim 1, wherein the user customization module is further configured to register a plurality of users.

5. The coupon calendar system of Claim 1, wherein the user customization module is further configured to directly present to the users promotions relating to the user's interests.

6. A coupon calendar system comprising:

a merchant management module configured to manage promotions from merchants; and

a user customization module configured to provide a user with a custom set of promotions wherein at least one of the set of promotions are from the merchants.

7. The coupon calendar system of Claim 6, wherein the merchant management module is further configured to:

register merchants;

collect promotions; and

track merchant billing information.

8. The coupon calendar system of Claim 6, wherein the user customization module is further configured to:

process user queries in order to determine the user's interests;

select promotions that relate to the user's interests; and

present a display that includes information on the selected promotions.

9. The coupon calendar system of Claim 6, wherein the user customization module is further configured to register a plurality of users.

10. A method for providing custom promotions calendars, the method comprising:

receiving a plurality of promotions relating to a plurality of merchants;

receiving a plurality of user information relating to a plurality of users;

matching at least one of the plurality of promotions to the at least one of the plurality of users based at least on the plurality of user information; and

presenting to the at least one of the plurality of users information on the matching at least one of the plurality of promotions.

11. A method for providing custom promotions, the method comprising:

receiving a plurality of promotions relating to a plurality of merchants;

receiving a plurality of user information relating to a plurality of users;

matching at least one of the plurality of promotions to the at least one of the plurality of users based at least on the plurality of user information; and

presenting to the at least one of the plurality of users information on at least one of the plurality of promotions based on the matching.

12. The method of Claim 11 wherein the promotion display is an interactive coupon.

13. The method of Claim 11 wherein the promotion display is an audio and video commercial.

14. A method for providing promotions to consumers based on the desired dates of the consumer, the method comprising:

receiving a request from at least one consumer reflecting a date or possible range of dates and desired good or service;

making such request available to a plurality of good and service providers;

receiving offers for goods or services from at least one of the providers; and

presenting to the consumer information on at least one offer from the provider.

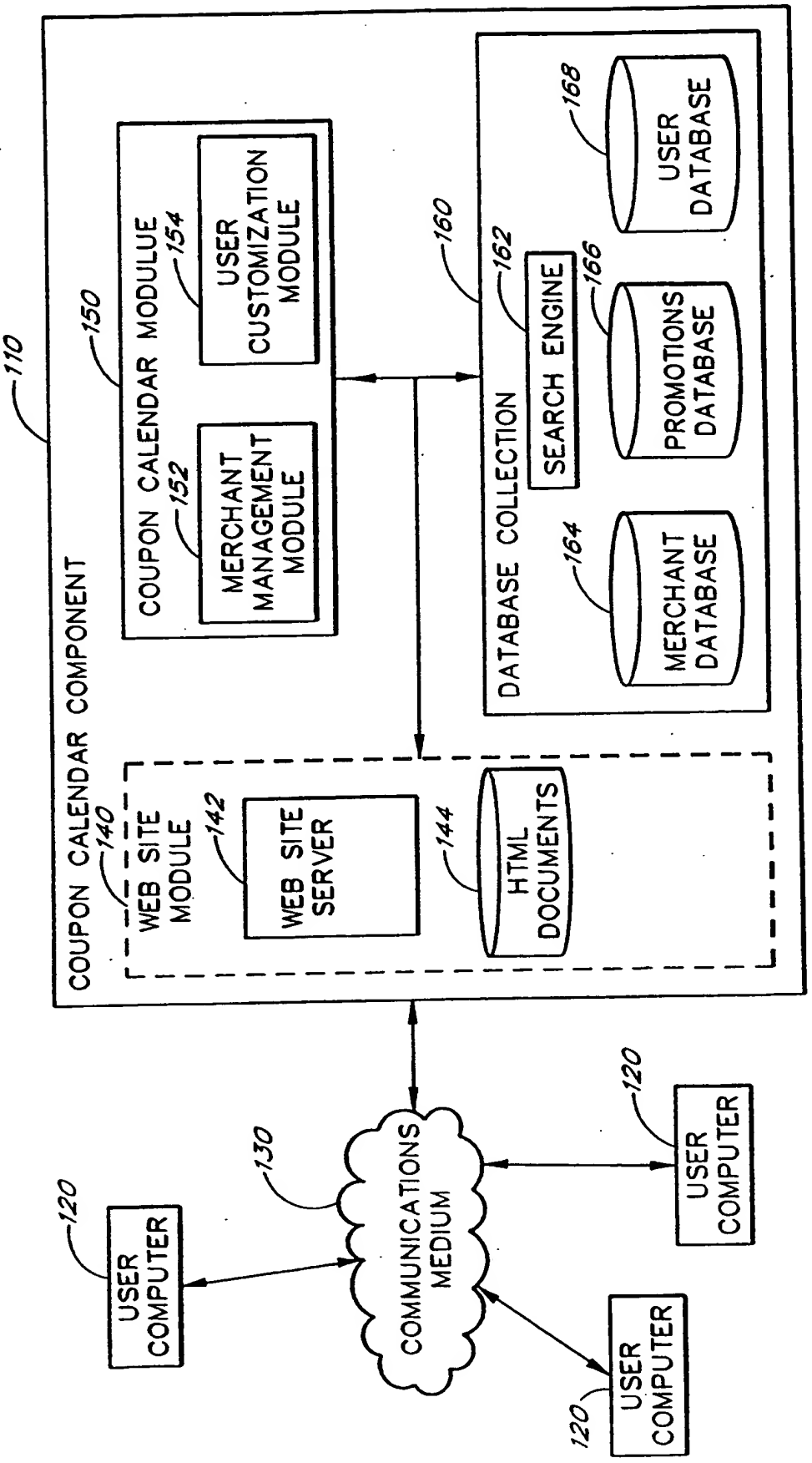
110
COUPON CALENDAR COMPONENT
140
WEB SITE MODULE
142
WEB SITE SERVER
144
HTML DOCUMENTS
150
COUPON CALENDAR MODULUE
152
MERCHANT MANAGEMENT MODULE
154
USER CUSTOMIZATION MODULE
160
DATABASE COLLECTION
162
SEARCH ENGINE
164
MERCHANT DATABASE
166
PROMOTIONS DATABASE
168
USER DATABASE
130
COMMUNICATIONS MEDIUM
120
USER COMPUTER
120
USER COMPUTER
120
USER COMPUTER

FIG. 1

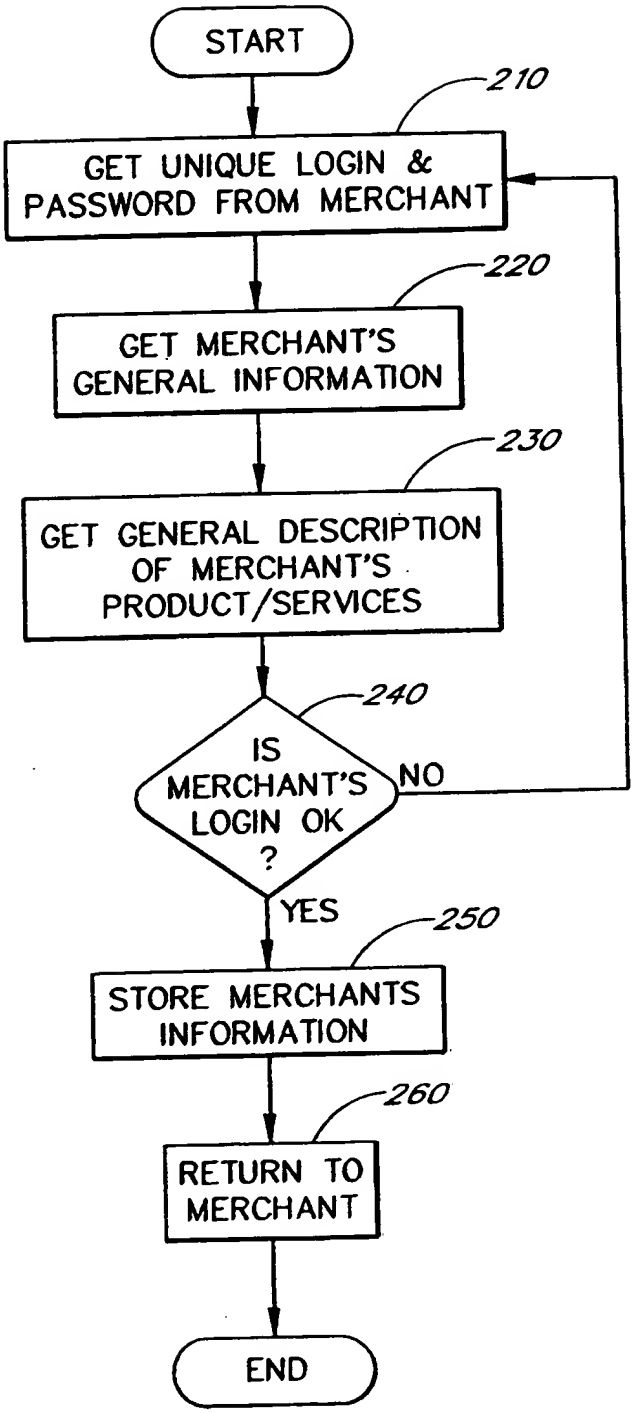
START
210
GET UNIQUE LOGIN & PASSWORD FROM MERCHANT
220
GET MERCHANT'S GENERAL INFORMATION
230
GET GENERAL DESCRIPTION OF MERCHANT'S PRODUCT/SERVICES
240
IS MERCHANT'S LOGIN OK ?
NO
YES
250
STORE MERCHANTS INFORMATION
260
RETURN TO MERCHANT
END

FIG. 2

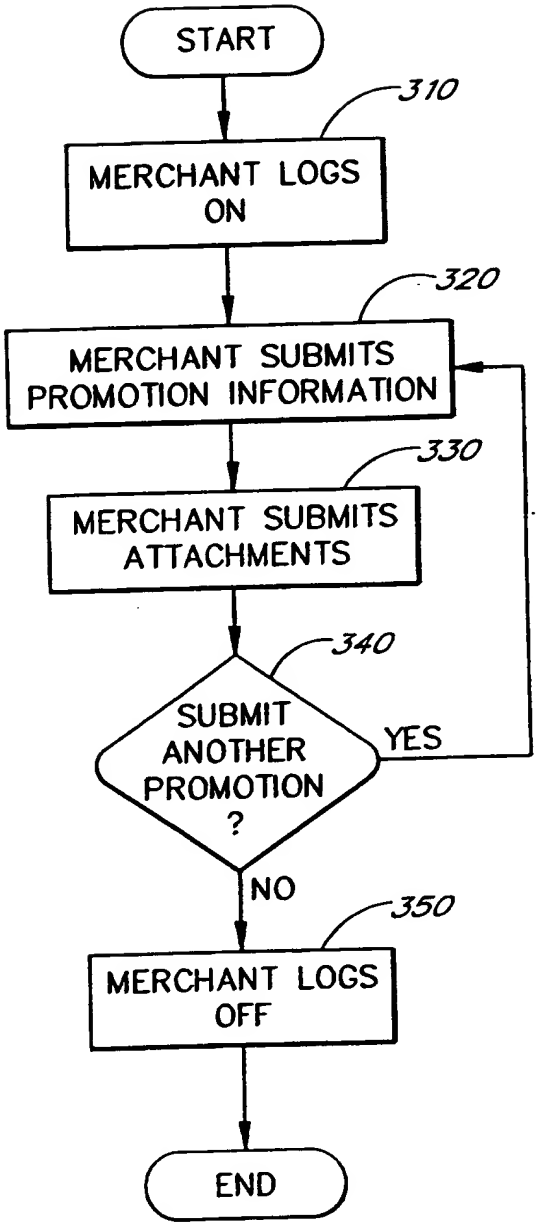
START
310
MERCHANT LOGS ON
320
MERCHANT SUBMITS PROMOTION INFORMATION
330
MERCHANT SUBMITS ATTACHMENTS
340
SUBMIT ANOTHER PROMOTION ?
YES
NO
350
MERCHANT LOGS OFF
END

FIG. 3

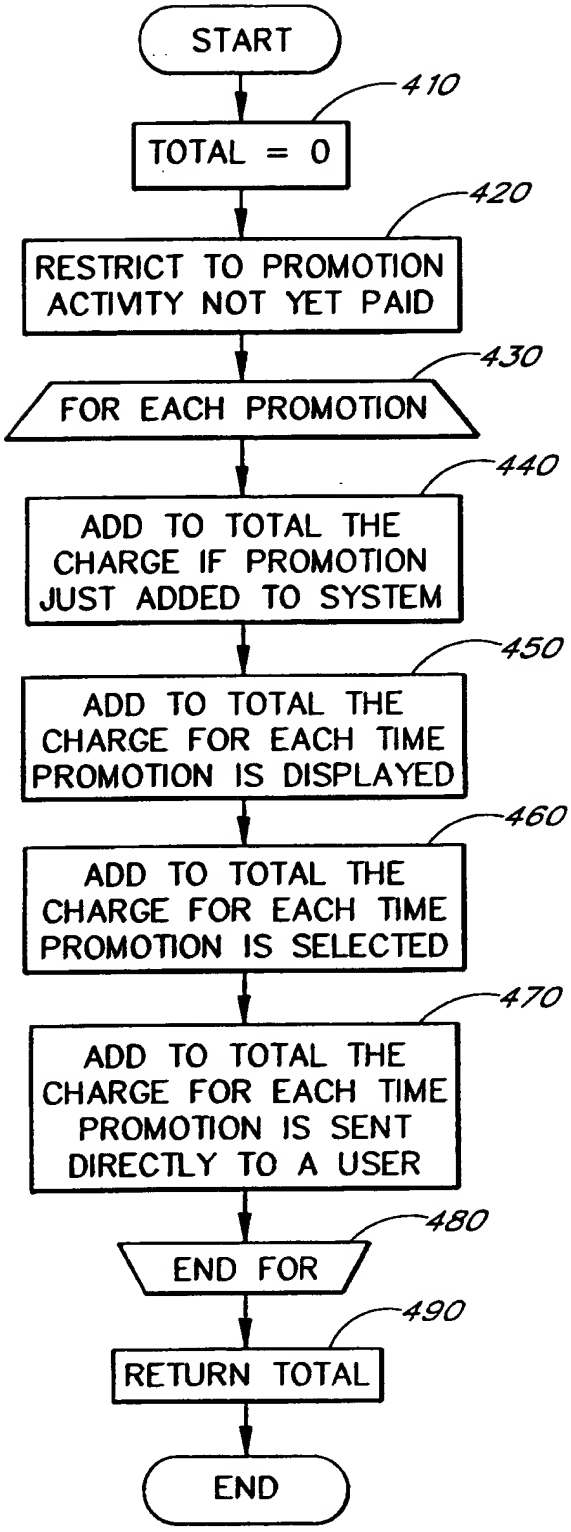
START
410
TOTAL = 0
420
RESTRICT TO PROMOTION ACTIVITY NOT YET PAID
430
FOR EACH PROMOTION
440
ADD TO TOTAL THE CHARGE IF PROMOTION JUST ADDED TO SYSTEM
450
ADD TO TOTAL THE CHARGE FOR EACH TIME PROMOTION IS DISPLAYED
460
ADD TO TOTAL THE CHARGE FOR EACH TIME PROMOTION IS SELECTED
470
ADD TO TOTAL THE CHARGE FOR EACH TIME PROMOTION IS SENT DIRECTLY TO A USER
480
END FOR
490
RETURN TOTAL
END

FIG. 4

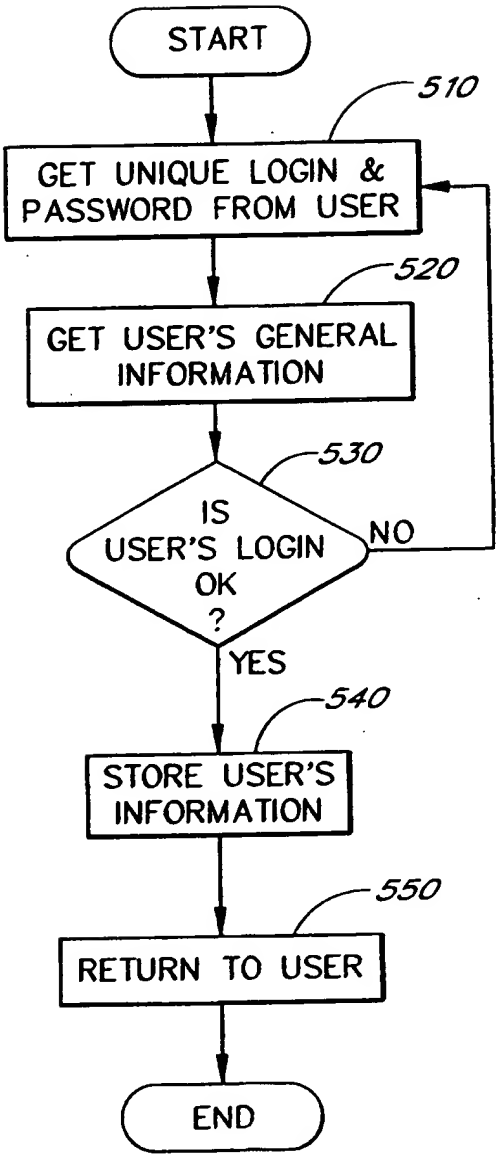
START
510
GET UNIQUE LOGIN & PASSWORD FROM USER
520
GET USER'S GENERAL INFORMATION
530
IS USER'S LOGIN OK ?
NO
YES
540
STORE USER'S INFORMATION
550
RETURN TO USER
END

FIG. 5

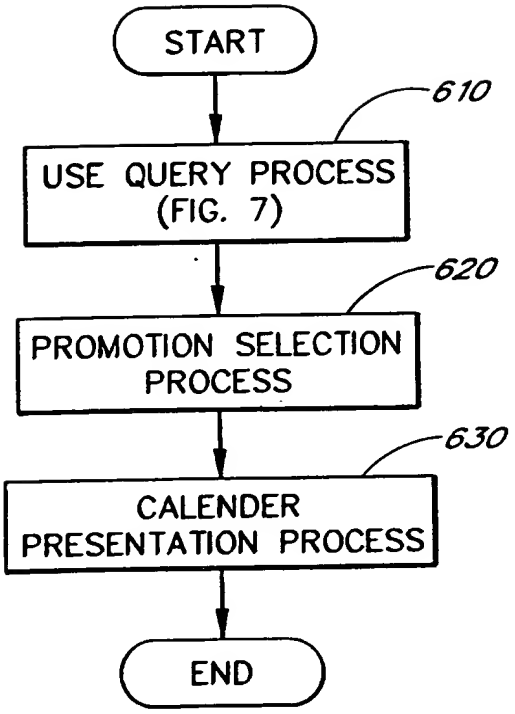
START
610
USE QUERY PROCESS (FIG. 7)
620
PROMOTION SELECTION PROCESS
630
CALENDER PRESENTATION PROCESS
END

FIG. 6

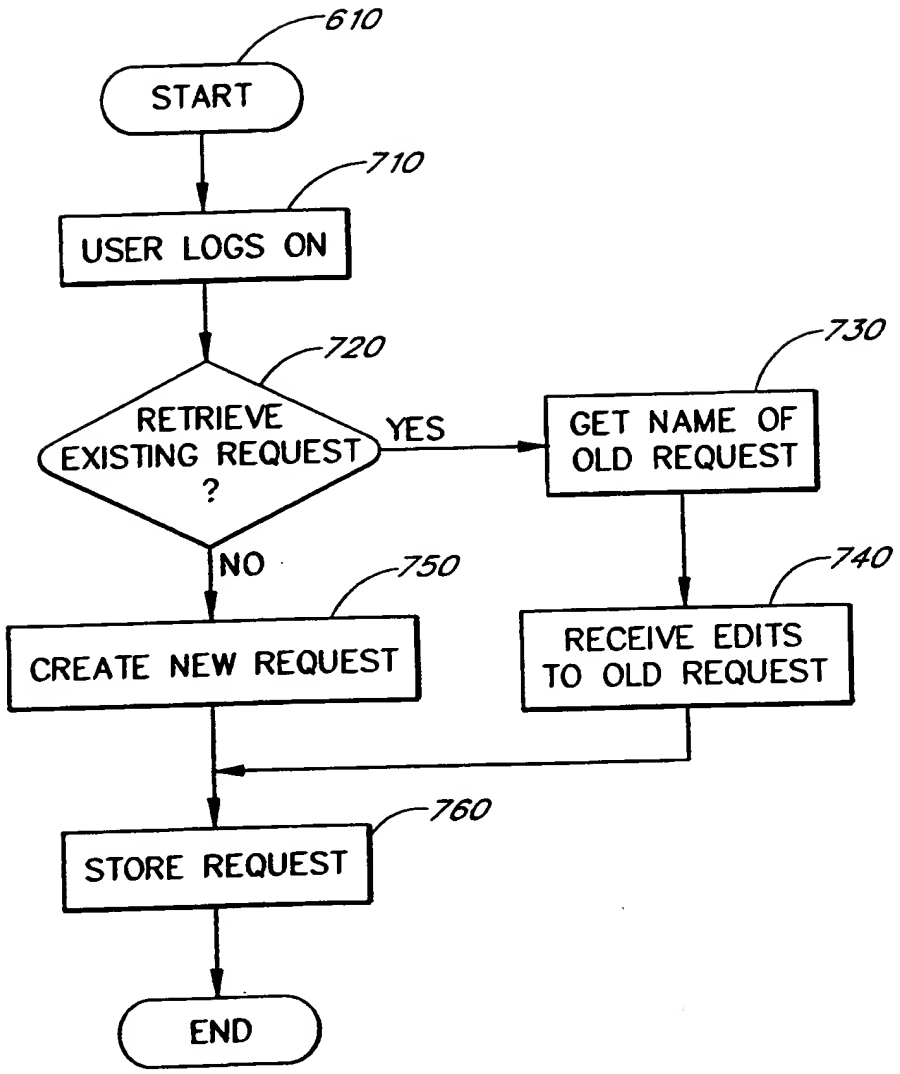
610
START
710
USER LOGS ON
720
RETRIEVE EXISTING REQUEST ?
YES
730
GET NAME OF OLD REQUEST
NO
750
CREATE NEW REQUEST
740
RECEIVE EDITS TO OLD REQUEST
760
STORE REQUEST
END

FIG. 7

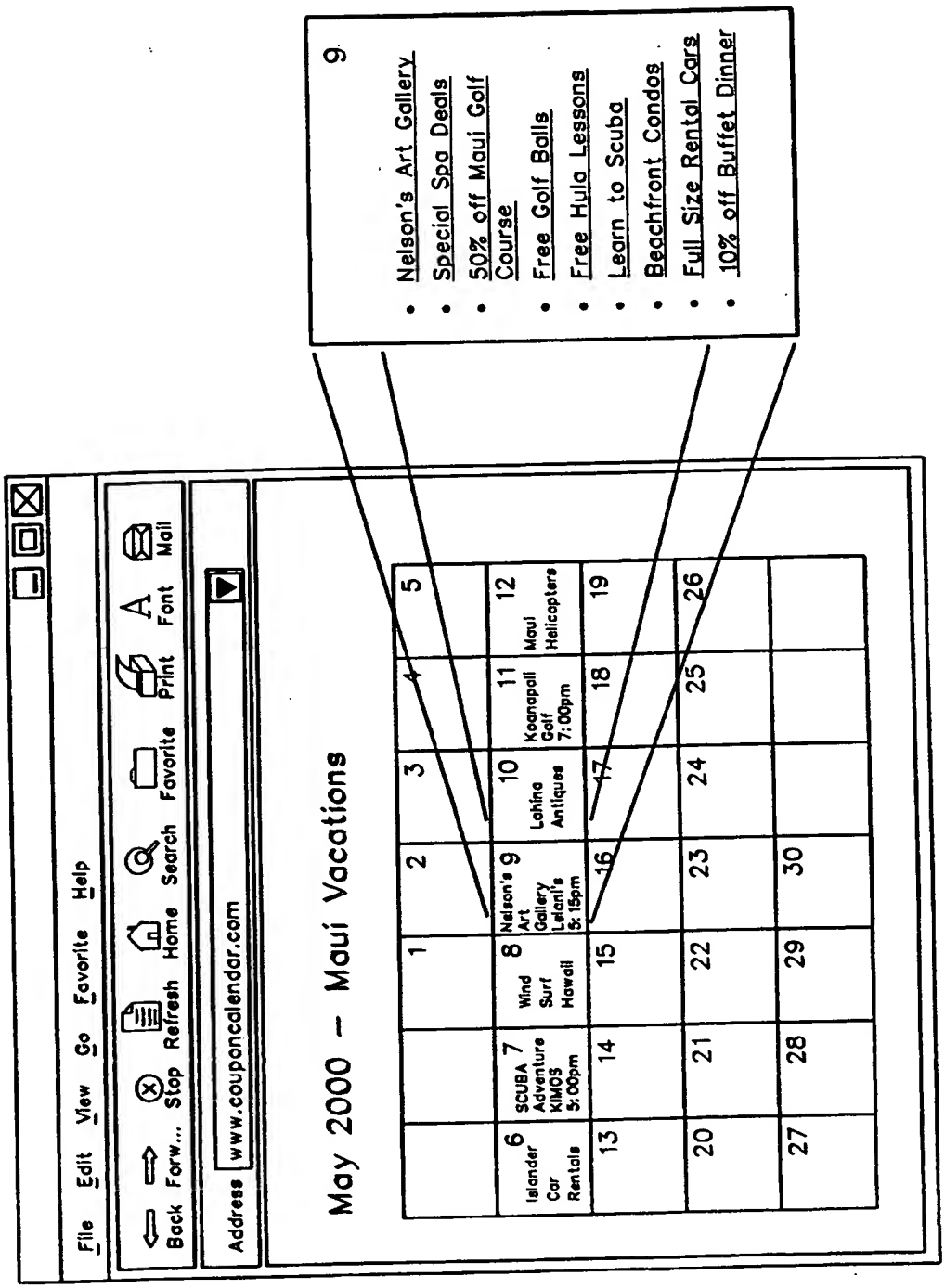
File Edit View Go Favorite Help
Back Forw... Stop Refresh Home Search Favorite Print Font Mail
Address www.couponcalendar.com
May 2000 - Maui Vacations
Islander Car Rentals
SCUBA Adventure KIMOS 5:00pm
Wind Surf Hawaii
Nelson's Art Gallery Lelani's 5:15pm
Lahina Antiques
Kaanapali Golf 7:00pm
Maui Helicopters
9
Nelson's Art Gallery
Special Spa Deals
50% off Maui Golf Course
Free Golf Balls
Free Hula Lessons
Learn to Scuba
Beachfront Condos
Full Size Rental Cars
10% off Buffet Dinner

FIG. 8

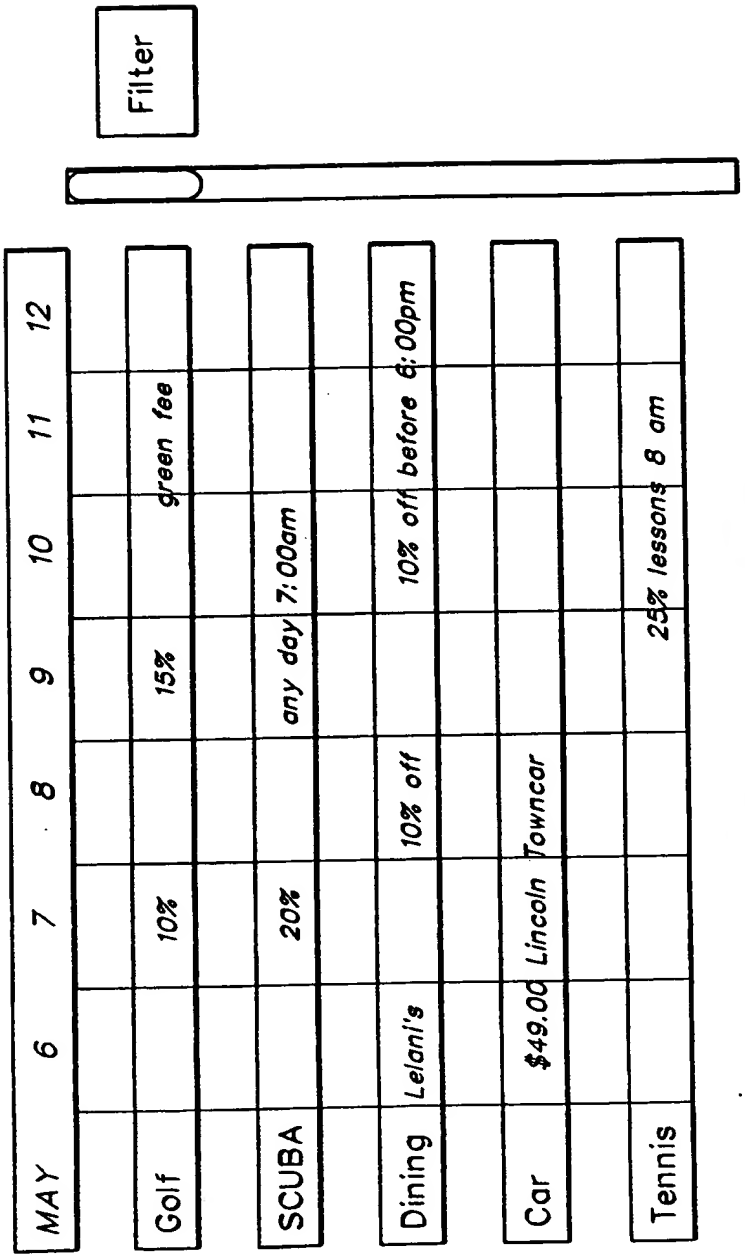
Filter
MAY 6 7 8 9 10 11 12
Golf 10% 15% green fee
SCUBA 20% any day 7:00am
Dining Lelani's 10% off 10% off before 6:00pm
Car $49.00 Lincoln Towncar
Tennis 25% lessons 8 am
Build Calendar
Map It
Buy It

FIG. 9

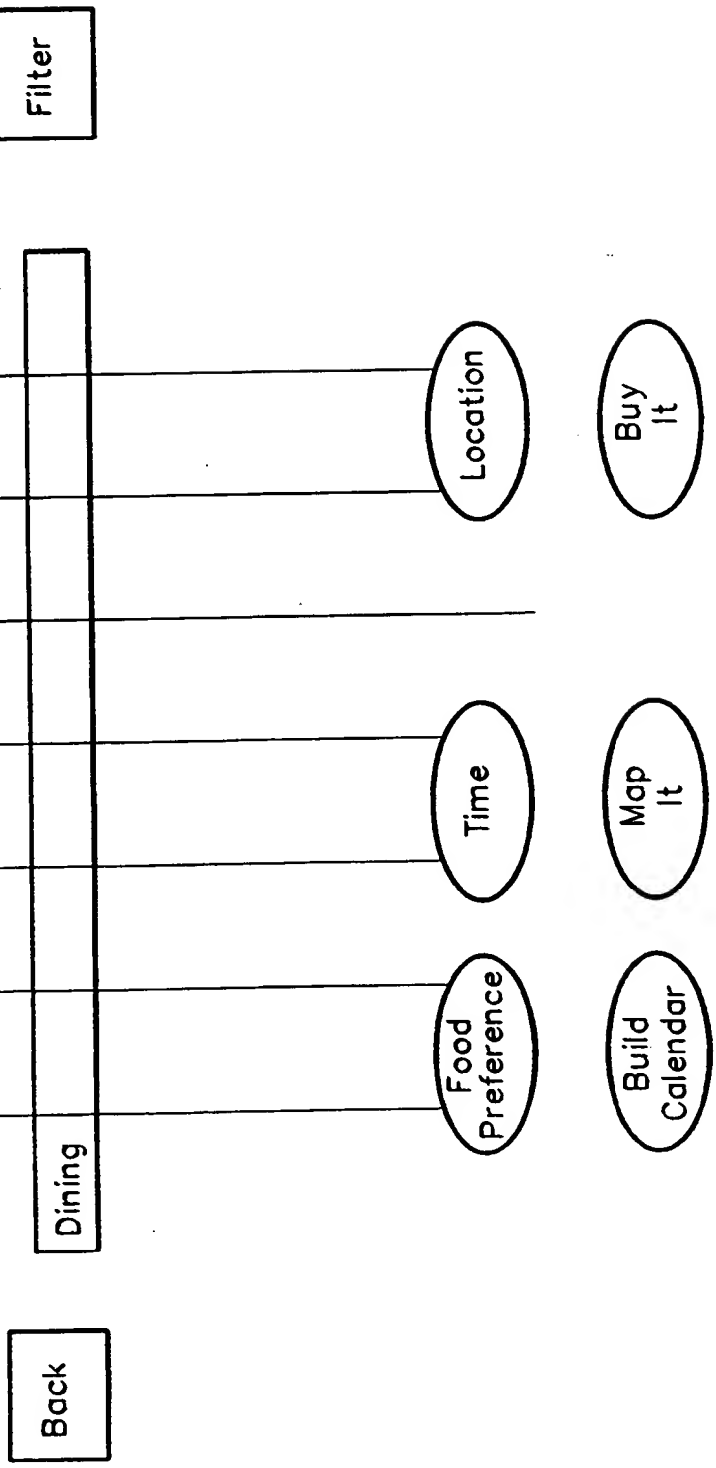
Filter
MAY
6
7
8
9
10
11
12
Dining
Location
Time
Food Preference
Buy It
Map It
Build Calendar
Back

FIG. 10